

AMENDMENTS TO THE CLAIMS

Please amend the claims as follows:

1. (Previously presented) A trocar assembly comprising:

a trocar including an elongated, generally annular cannula for extending through a tissue boundary, said cannula having a distal end for placement on one side of the tissue boundary and a proximal end for placement on another side of the tissue boundary, a trocar base disposed at said proximal end of said cannula, and a trocar lumen extending from a proximal end of said base axially through said cannula to said distal end thereof; and

a trocar cap for removable attachment to said proximal end of said trocar base, said cap having a cap lumen, wherein:

said trocar includes a magnet comprising an annular disc disposed at said proximal end of said base surrounding said trocar lumen; and

said trocar cap includes a magnetic member comprising a second magnet or a non-magnetized magnetically permeable member, said magnet on said trocar and said magnetic member on said cap being positioned on said cap and said trocar for magnetically securing said cap to said proximal end of said trocar base with said cap lumen in alignment with said trocar lumen.

2. (Previously presented) A trocar assembly as in claim 1, wherein said magnet on said trocar comprises a permanent magnet and said magnetic member on said cap comprises a permanent magnet, the magnetic fields of said magnets being oriented to attract a predetermined side of said cap to said base.

3. (Previously presented) A trocar assembly as in claim 1, wherein said trocar cap magnetic member is a magnet.

4. (Previously presented) A trocar assembly as in claim 3, wherein said trocar cap magnet is funnel-shaped and surrounds said cap lumen.

5. (Previously presented) A trocar assembly as in claim 3, wherein said trocar cap magnet creates a magnetic field generally axially aligned with said cap lumen and having a predetermined strength for holding a distal end of an elongated surgical instrument in place in alignment with said cap lumen.

6. (Original) A trocar assembly as in claim 5, wherein said cap lumen forms a funnel-shaped opening at a proximal end of said cap.

7. (Previously presented) A trocar assembly as in claim 3, wherein said trocar cap magnet comprises one of an annular disc surrounding said cap lumen and a plurality of individual elements secured to said cap and arranged circumferentially around said cap lumen.

8. (Original) A trocar assembly as in claim 7, wherein said cap lumen forms a funnel-shaped opening at a proximal end of said cap.

9. (Currently amended) A trocar assembly as in claim 1 [[3]], wherein said trocar cap and said trocar base include cooperating camming members for generating a force tending to separate said cap and said base upon movement of said cap transversely to said base.

10. (Currently amended) A trocar assembly as in claim 1 [[3]], wherein:

said trocar cap magnetic member ~~magnet~~ comprises an annular disc secured to said cap surrounding said cap lumen, and said trocar cap further includes an annular cap camming ring surrounding said annular disc and having a first sloped face; and

said trocar base includes an annular trocar camming ring surrounding said annular disc and having a second sloped face for cooperating with said first sloped face for generating a force tending to separate said cap and said base upon movement of said cap transversely to said base.

11. (Original) A trocar assembly as in claim 10, wherein said camming rings are compliant to form a circumferential seal between said contacting sloped faces when said cap is magnetically secured to said base.

12. (Original) A trocar assembly as in claim 1, further comprising at least one of a cap valve member including a compliant toroidal body disposed in said cap and a trocar valve member including a compliant toroidal body disposed in said trocar base, wherein said toroidal body has a central opening and is disposed for compression axially when said cap is magnetically secured to said base thereby closing said central opening when a surgical instrument is not present in said lumen.

13. (Original) A trocar assembly as in claim 12, further comprising said cap valve member and said trocar valve member, wherein said toroidal bodies are in contact to mutually compress each other axially when said cap is magnetically secured to said base.

14. (Previously presented) A trocar comprising;

an elongated cannula for extending through a tissue boundary, said cannula having a distal end for placement on one side of the tissue boundary and a proximal end for placement on another side of the tissue boundary, and a trocar base disposed at said proximal end of said cannula, with a trocar lumen extending axially of said base from a proximal end thereof to said distal end of said cannula; and

a magnet in said base comprising an annular disc disposed at said proximal end of said base surrounding said lumen for creating a magnetic field generally axially aligned with said lumen and having a predetermined strength for holding a distal end of an elongated surgical instrument in place in alignment with said lumen.

15. (Canceled)

16. (Previously presented) A trocar as in claim 14, wherein said lumen forms a funnel-shaped opening at said proximal end of said base.

17. to 35. (Canceled)

36. (Previously presented) A trocar comprising;

an elongated cannula for extending through a tissue boundary, said cannula having a distal end for placement on one side of the tissue boundary and a proximal end for placement on another side of the tissue boundary, and a trocar base disposed at said proximal end of said cannula, with a trocar lumen extending axially of said base from a proximal end thereof to said distal end of said cannula; and

a magnet in said base including an annular member surrounding said lumen for creating a magnetic field generally axially aligned with said lumen.

37. (Previously presented) A trocar as in claim 36, wherein said lumen forms a funnel-shaped opening at said proximal end of said base.

38. (Previously presented) A trocar as in claim 36, wherein said magnet is funnel-shaped to form said opening.

39. (Previously presented) A trocar as in claim 38, wherein said magnet completely surrounds said funnel-shaped opening.

40. (Previously presented) A trocar as in claim 36, wherein said magnet has a predetermined strength for holding a distal end of an elongated surgical instrument in place in alignment with said lumen.

41. (Previously presented) A trocar as in claim 36, wherein said magnet completely surrounds said lumen.

42. (Previously presented) A trocar as in claim 36, wherein said magnet is circular.

43. (Previously presented) A trocar as in claim 36, wherein said magnet comprises an annular disc.

44. (Previously presented) A trocar as in claim 43, wherein said annular disc completely surrounds said lumen.

45. (Previously presented) A trocar as in claim 44, wherein said annular disc is circular.

46. (Previously presented) A trocar as in claim 12, wherein at least one of said compliant toroidal body disposed in said cap and said compliant toroidal body disposed in said trocar base comprises at least one of an elastomeric material, silicone rubber, and a hollow compliant material filled with at least one of a sterile saline solution and a hydrogel.